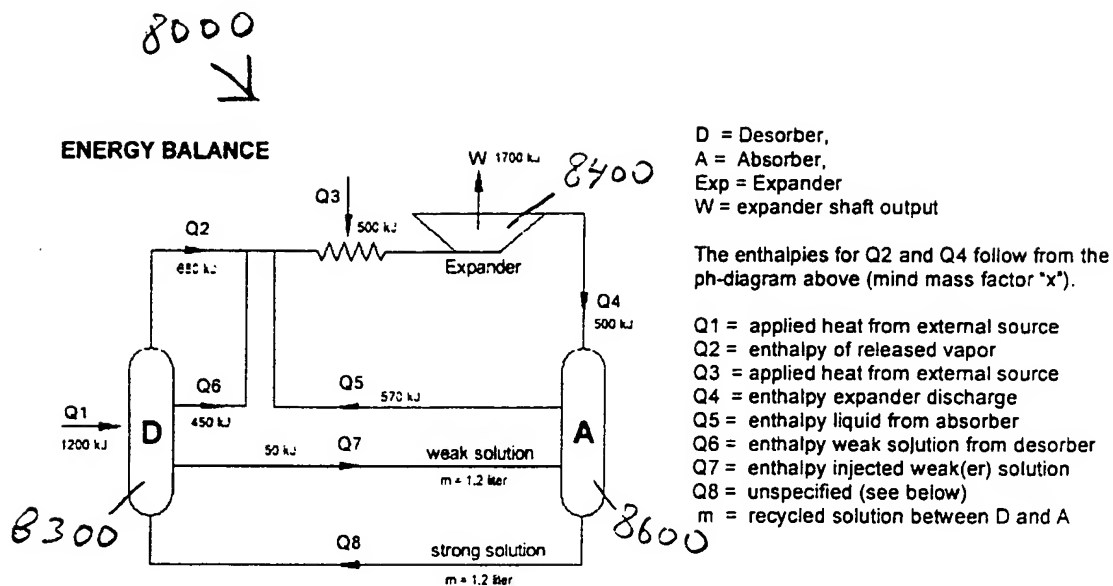


Fig. 21



Balance Conditions:

$$\begin{aligned}
 D_{in} &= Q1 + Q8 & D_{out} &= Q2 + Q6 + Q7 & EXP_{in} &= Q2 + Q6 + Q5 + Q3 \\
 A_{in} &= Q4 + Q7 & A_{out} &= Q5 + Q8 & EXP_{out} &= Q4
 \end{aligned}$$

$$W = Q1 + Q3 \quad (1)$$

$$EXP_{in} - EXP_{out} = Q2 + Q6 + Q5 + Q3 - Q4 = W = Q1 + Q3 \quad (2)$$

$$Q1 = Q2 + Q6 + Q5 - Q4 \quad (3)$$

$$D_{in} - D_{out} = Q1 + Q8 - Q2 - Q6 - Q7 \quad (4)$$

$$(3 \text{ \& } 4 \text{ combined, eliminating } Q1) \rightarrow D_{in} - D_{out} = Q5 - Q4 + Q8 - Q7 \quad (5)$$

$$-(A_{in} - A_{out}) = Q5 - Q4 + Q8 - Q7 \quad (6)$$

Fig. 22

